



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,892	04/15/2004	Etienne de Fontenay	03161.116303	7316
5514 7590 07/19/2007 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			EXAMINER WILLIAMS, THOMAS J	
			ART UNIT 3683	PAPER NUMBER
			MAIL DATE 07/19/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,892	Applicant(s) DE FONTENAY ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1,4,6,8 and 10-18 is/are rejected.
- 7) ☒ Claim(s) 5,7 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on June 22, 2007 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,435,486 to Maier in view of US 6,622,996 to Mayerbock et al.

Re-claim 1, Maier teaches a hydroelastic joint (see figure 4) for assembling pieces of a structure and for damping vibrations transmitted between each piece the pieces, the joint being is

Art Unit: 3683

suitable for assembly of ground contact members to a main structure of a vehicle, the joint comprising: an external reinforcement 2 and an internal reinforcement 3, each reinforcement has a longitudinal axis, wherein the external reinforcement 2 and the internal reinforcement 3 are disposed one around the other and fixed respectively to one and to the other of the pieces to be assembled; an intermediate reinforcement 1; an assembly forming a hydroelastic spring (see fluid chamber 7) is disposed between the external reinforcement and the intermediate reinforcement in order to permit a relative transverse displacement between the external reinforcement and the intermediate reinforcement, the assembly comprising a first elastically deformable element 4 shaped in order to delimit between the external reinforcement and said intermediate reinforcement at least one sealed volume 7 containing damping fluid; at least one sealed volume (upper volume chamber) has a longitudinal boss (see figure 4, note the elastically deformable members are reversed in figure 4 relative to figure 1) separating the sealed volume into a plurality of chambers (left and right side chambers); a second elastically deformable element 5 is disposed between the intermediate reinforcement 1 and said internal reinforcement 3, wherein the second elastically deformable element 5 has a longitudinal dimension less than a corresponding longitudinal dimension of the first elastically deformable element 4 (see figure 4, note that the longitudinal dimension of element 5 is less than the longitudinal dimension of element 4), in order to limit a transverse deformation of the first elastically deformable element during a relative tilting of the longitudinal axes of the external reinforcement and the internal reinforcement about at least one transverse tilting axis, the longitudinal dimension of each of the first 4 and second 5 elastically deformable elements is defined as an axial dimension of a portion that substantially fills a radial space between corresponding ones of the reinforcements, wherein

Art Unit: 3683

the intermediate reinforcement 1 is disposed between the first 4 and second 5 elastically deformable elements, the first and second elastically deformable elements adhere on a central portion with a constant cross-section of the intermediate reinforcement, and the second elastically deformable element adheres on a central portion with a constant cross-section of the internal reinforcement. Maier teaches the purpose of the boss is to address high radial loadings, see column 3 lines 7-18. However, Maier fails to teach a second longitudinal boss in the lower sealed volume chamber.

Mayerbock et al. teach a hydroelastic joint having an upper and lower sealed volume chamber, wherein each sealed chamber is provided with a longitudinal boss separating the sealed volume chamber into a plurality of chambers. It would have been obvious to one of ordinary skill in the art to have provided in the lower sealed volume chamber of Maier a second longitudinal boss as taught by Mayerbock et al., so as to provide a means for addressing any excessive upward radial loading experienced by the joint during use.

Re-claim 4, see the end walls defining the sealed chamber and reinforcement element located in the end walls.

Re-claim 6, see flow connections 9a and 9b.

Re-claim 8, the boss elements function as limit stops.

Re-claim 10, each elastically deformable element has a different rigidity, see column 3 lines 4-6.

Re-claims 11 and 12, the sealed volume chamber 7 is divided into the plurality of chambers according to a first transverse direction defining a hydraulic damping direction

Art Unit: 3683

(interpreted as a transverse direction from a central longitudinal axis of the joint), the first and second transverse direction are parallel, which forms an angle of zero degrees.

Re-claim 13, the second elastically deformable element has recesses at each axial end that are broadly interpreted as cells.

Re-claim 14, Maier teaches at least one of the elastically deformable elements is attached during a vulcanization process. However, Maier is silent regarding the method of attachment for the other elastically deformable element, and whether the attachment is achieved in a single moulding step.

Mayerbock et al. teach a hydroelastic joint in which the first and second elastic elements are obtained in a single moulding step (such as vulcanization), thus saving manufacturing time. It would have been obvious to one of ordinary skill in the art when having manufactured the assembly of Maier to have done so such that the first and second elastic elements would have been obtained in a single moulding step as taught by Mayerbock et al., thus reducing manufacturing time and costs.

Re-claim 16, the external reinforcement 2 abuts at least one of the pieces of the structure.

Re-claims 17 and 18, Maier teaches the joint used in a suspension of a vehicle. However, Maier fails to teach the specifics of the vehicle. Mayerbock et al. teaches a hydroelastic joint used in a vehicle having an axle and beam bearing. It would have been obvious to one of ordinary skill in the art to have utilized the joint of Maier on a vehicle as taught by Mayerbock et al., thus damping the transmission of vibrations to the occupants of the vehicle.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maier in view of Mayerbock et al. as applied to claim 1 above, and further in view of US 5,301,414 to Gautheron.

Art Unit: 3683

Re-claim 15, the internal reinforcement of Maier has a tubular shape. However, Maier fail to teach an enlarged portion located at least at one end of the internal reinforcement.

Gautheron teach a joint with an internal reinforcement 10/11 with an enlarged end portion 6 used to provide an annular reinforcement for the adjacent elastomeric element. It would have been obvious to one of ordinary skill in the art to have provided the internal reinforcement of Maier. with an enlarged end support surface as taught by Gautheron, thus providing an additional support surface for the adjacent elastic member.

Allowable Subject Matter

6. Claim 19 is allowed.
7. Claims 5, 7 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments with respect to claims 1 and 4-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3683

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

July 13, 2007

THOMAS J. WILLIAMS
PRIMARY EXAMINER

Thomas Williams

AU 3683

7-13-07